REMARKS

Claims 1, 2, 8-27 are in the application and have been amended as shown.

No claims are presently allowed.

Favorable reconsideration is requested in view of the enclosed amendments and the following representations. The specification is amended to correct minor errors. No new matter has been added. Support for the amendments is found in the original claims, specification, and drawings.

Applicants thank the Examiner for their patience in this matter, believe that the enclosed is fully and helpfully responsive, and for the reasons noted herein, respectfully traverse the below-noted findings for the reasons stated below. Applicants respectfully request reconsideration of the rejections for the reasons noted herein.

Applicants note their response complies with the waiver of 37 C.F.R. §1.121 notice issued January 31, 2003, wherein "[ ]" indicate deleted matter and "____" indicates added matter and marked-up claims are shown.

1. Claims

Applicant notes that the light emitting member provides light to both the reel rotation and detection mechanism and the leading and entraining end sensing mechanism through the same light guiding member 63. Since the branch portion 63b guides a portion of the light emitted to detect the reel rotation, the phrase "at least" has been added to the first line of claim 1 (and elsewhere) to ease this understanding and show that since the claim otherwise subsumes (and hence requires) light from the light emitter to operate with the reel rotation mechanism, the light emitter also provides this light to the light guiding member 63.

Other changes have been made to the claims to clearly show that opening portion 11 of reel disk portion 13 must align with opening portion 21 to allow light passage from branch portion 63b to at least one light receiving element 62. In each independent claim 1, 26, and 27, these openings have been identified more clearly.

Since there are several light receiving elements in a complete video assembly (a first set of light receiving elements 42a, 42b to detect the leading and trailing ends of a tape, and a second light receiver 62 to detect the reel rotation), the language of the claims has been amended to show the 'at least' quality of the initial invention when combined with a complete video assembly subsumable from the claim language itself.

No new matter has been added, only clarifying labels.

2. Drawings

As noted above, the Applicant has amended, Figs. 2 and 3 as noted and as earlier approved. Clean and marked-up copies provided. Namely, final correction to Fig 2 to add 51b and to Figs. 2 and 3 to indicate 'Prior Art.' Applicant add numeral 55 for the intermediate gear in Fig. 5 and made other corrections as shown.

3. Specification

The amendment made on page 7, last para., to change light emitting element 51 to light receiving element 51, is supported by Fig. 5, page 6 line 20, and others.

Applicant notes that page 6, line 1 describes an intermediate gear 54 linking/synchronizing sensor gear 53 and reel 10. Obviously, in the description of Fig. 5, the outer edge of the disk portion of reel 10 includes teeth intermeshing with the intermediate gear (now 55) which drives sensor gear 53. Since 54 is otherwise described as light transmitting portions (Figs. 2 and 3), we chose a new numeral 55 for ease of use to designate the intermediate gear. Similar change has been made to the specification as noted above.

Applicant asserts that the disclosure provides adequate exemplification of what is regarded as applicant's invention. Applicant suggests that it has become clear that a brief review of the operational aspects of the present invention and the interplay between the Figs. is required to foster a better understanding of both the drawings and claim language as cited by the specification. Reference to this regard is specifically made as follows. Applicants propose that the place for such working details is in the

specification and not in the claims since those skilled in the art will read the complete application in light of the known skill in the art without confusion.

4. Response to Claim Objections

The Examiner notes in para. 6 of the instant action that "it is unclear how the leading end and entraining end of a magnetic tape is detected by emitting light from the light emitting element. The light receiving element only receives light from the reel." Applicants note that the first line of claim 1 includes an element, namely the light emitting element, and also includes additional descriptive language noting the at least one function of the light emitting element (for detecting leading and trailing ends). The structure for detecting leading and trailing ends is not necessary to include in claim 1 and is provided elsewhere.

The second line of claim 1 introduces the light guiding element which mandatorily is shaped to perform two functions (1) for guiding the light from the light emitting element into the cassette for detecting the leading and entraining ends of a magnetic tape, and (2) for directly guiding a portion of the light onto the side of the reel for detection of the reel. For clarity Applicant has added the word "for" and "portion" to specify the mandatory duel functions of the light guiding element.

Other changes have been made to the claims for clarity and ease of reading without limiting the scope of the invention. No amendment has been made to distinguish over the applied art, only to clarify the reading for the examiner.

Applicants propose that appropriate correction has been provided to ease this understanding in claim 1 and the other claims. As Applicant's may be their own lexicographer, and since the test for indefiniteness, which is whether one skilled in the art would understand the bounds of the claim when read in light of the entire specification (*see Orthokinetics Inc. v. Safety Travel Chairs, Inc.* 806 F.2d 1565, (Fed Cir. 1986) *and others in the MPEP)*, Applicant proposes that this understanding is clearly provided.

5. Claim rejection under 35 U.S.C. §103(a)

Claims 1, 2, and 8-27 stand initially rejected under 35 U.S.C.§103(a) as being nonobvious over a confusing list of obviousness-type discussions. On page 5 lines 9-end of the instant action, the Examiner indicates that some form of the AAPA, having under gone some untaught and Examiner suggested form of "simple translation" would achieve both the different elements, structure, arrangement, and operational positioning of the present invention. Applicant respectfully and seasonably traverses this rejection.

The Examiner further relies upon Higuchi (pg 5 ln 16-19) as teaching the position of a light receiving element below the deck chassis. Finally, the Examiner indicates that it would been obvious to a person of ordinary skill to position the light receiving element below the deck and cites in support, that "it has been held that rearranging parts of an invention involves only routine skill" in the art and cites *In re Japikse*, 86 USPQ 70.

Before going further, Applicants reviewed the *Japikse* ruling (found in MPEP §2144.04(VI)(C)) relied upon by the Examiner. Specifically, Applicants found that the *Japikse* ruling is restricted solely to the repositioning of a starting switch since no modification of the *Japikse* operation existed and all other elements were the same (unlike the present case where both modification in operation and additional/different elements exist). More specifically, in exactly the same MPEP section describing *Japikse*, the PTO limits the *Japikse* ruling to the facts of the single case and notes the following complete rule from the same MPEP section:

> The mere fact that a worker in the art could rearrange the parts of a reference device to meet the terms of the claims [ ] is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of ... [the] specification, to make the necessary changes in the reference device." *Ex parte Chicago Rawhide Mfg. Co,* 223 USPQ 351 (1984) (applicant emphasis, applicant notes also the 34 year difference and limitation between *Japikse* and *Chicago Rawhide* render *Japikse* limited and in the present application bad law) [in other words an explicit teaching must be in writing to rearrange and all the elements must still exist]

Applicants note, as will be later described in more detail, that merely repositioning parts of either Higuchi or the AAPA fails to create the instant reel rotation and detection invention without (1) adding additional modifying structure, (2) replacing previously known structures with the differently-shaped present structure shown in Fig. 1 based on an unknown teaching, (3) changing the mode of operation for previously disclosed reel rotation and detection mechanisms shown in Figs. 2-5, and (4) most importantly finding some explicit teaching or motivation to combine absent the instant specification. In sum, Applicant respectfully and seasonably traverses the rejection.

Now, let us discuss the importance of the instant invention, namely (1) a "reel rotation and detection mechanism" 60, (2) the AAPA type of "reel rotation and detection mechanisms" 50 shown in part in Figs. 4-5, as well as the alternate type of "reel rotation and detection mechanism" found in Figs 2-3, and (3) the interplay between all the "reel rotation and detection mechanisms" 60, 50 and Fig. 2, and the AAPA mechanism 40 for "detecting the leading and entraining ends" of a magnetic tape (as well as the AAPA version shown in Figs. 2 and 3). The specification describes the interplay between the above by noting that the instant invention in Fig. 1, replaces the conventional rotation detection mechanism 50 of Fig. 5. Thus, light guiding member 63 replaces light guiding member 43, light emitting element 61 replaces 41, etc. When this replacement occurs, the combination of the old tape end detection mechanism and new detecting mechanism 60 is a new combination.

In both cases, light remains split from the "tip end" portions of both light guiding members 63/40 and that split light goes out to service the mechanism for detecting the leading and entailing ends of the tape. In this manner, the present invention easily adapts for combination with the previously known mechanism for detecting the leading and trailing ends of the magnetic tape. It is important to understand that the figs 2-5 are illustrative of the prior inventions and their interplay, and that the invention of fig. 1 replaces a portion of the system. This is why the new mechanism 60, which works in a new way with fewer parts provides such important benefits to a manufacturer.

Under the obviousness standards, it is well known that **all** the claim limitations, including positional and structural and operational limitations, must be taught or suggested by the prior art. MPEP § 2143.03.

The following claim limitations are not found in the AAPA or the applied reference.

1. A light branching portion 63b for reel rotation detection.

2. Branching portion 63b above deck chassis 20.

3. Branching portion 63b including an end reflecting surface directing the sensing light downward to a sensor 63 at a specific location.

4. A disk portion of a reel 10 having a smooth outer surface and an opening portion 11.

5. An opening portion 11 aligned with both an opening portion 21 and sensor 63.

In claim 1, at least the following elemental differences are required by the independent claims and are sufficient to overcome the instant rejection:

1. The single light guiding member 63 (subsuming operability and hence requires the present structure) continuously guides light from below deck 20 to a point above the deck and back below the deck to light receiver 62 located below the deck. In Higuchi, separate side prisms 31, 32 are used and extend below deck 1. The required additional (and separate) side prisms 31, 32 of Higuchi also do not direct the separated light through a light passing portion 11 on the reel or the subsumed and hence required light passing portion 21 in the deck. In the AAPA of Fig. 3 the light guiding member 52 does not include a design to support this function (guiding back below the deck), which is why housing 31 must support light receiver 51 above the deck. In Fig. 5, the light conducting member 43 also fails both to direct the light above the deck and directly provide the light to the light receiver 51. If one were to somehow cobble together the parts from each prior know art, modification would still be required to achieve operability and no teaching to either combine, or modify exists.

2. The single light guiding member 63 directs the light through both the light passing portion 11 and the subsumed (and hence required) light passing portion 21 which mandatorily must be aligned with light receiver 62. See the requirement to "cross the light path reaching from the light guiding member to the first light receiving element through the rotation of the reel" of claim 1.

The benefits of the present invention over the art provided are many and include:

1. Both a considerably simpler and more compact construction (no additional parts such as 53a, 53b, 52, 55, teeth on the disk of reel 10 in Fig. 5, 54, 54a, 54b etc.). Meaning that manufacturers need to make only minimal changes to their production stream. (See page 6, last two paras. indicating that a cost reduction plateau had been reached by the industry.)
2. Cost savings leading from the simpler construction and ease of assembly. (See page 6, last para.). With the present invention, assembly involves only positioning substrate 30, chassis 20, reel 10 and light guiding member 63, thus limiting worker time and damaged parts.
3. Narrower construction (compaction) leading from the elimination of 54, 54a, 54b, 31, 43b, 52, 53, 55 etc., allowing deck chassis 20 and main substrate 30 to be closely positioned creating a narrower video tape deck.

Moreover, even where the prior art may be modified as suggested by the Examiner, the modification is not obvious 'unless the prior art suggests the desirability for the modification.' Here no suggestion, absent the Examiner's assertion, exists to both combine, modify, and revise the prior structures to achieve the instant invention. Nothing in the background provided teaches the instant structure and none is cited. Figures may not be sited to show motivation to combine unless supported by teaching language.

If the present objection is sustained, despite Applicant's seasonable traversal and request for supportive documents disclosing a teaching outside Applicant's specification for the "simple translation" offered by the Examiner, Applicants specifically request (MPEP §2163.04), that the Examiner provide notice, in an affidavit 'offer of proof,' establishing the ordinary skill in the art based upon the Examiner's own personal knowledge that positioning a light receiving element on a substrate below a chassis is the same as (1) modifying the prior art reel design, (2) modifying the prior art chassis design, (3) modifying both a shape, position, and operation mode of a prior art light guide, (4) aligning the requisite parts allowing light passage in a compact shape, and (5) incorporating the same in a tape deck.

Applicant suggests that the AAPA contains no teaching for such modification and in fact teaches away from combination by providing an operably acceptable and working alternative design, albeit with higher costs (page 6 last para.).

Since both Higuchi and AAPA are listed solely as teaching a light receiver position on a substrate below a chassis, no reference is shown with teaching or motivation to modify, replace, or add the additional or different elements of the present invention (alone or in combination). Since no modification of the claims would rationally require a new search (i.e. only labels are added), Applicant notes that any new reference applied in a subsequent action should be in a non-final form.

It is also noted that the Examiner had earlier described Fig 3 as showing the light guiding member having a pillar portion 52 extending through the deck chassis. Applicants note that no portion of light guiding member 52 extends through deck chassis 20 in Fig. 3.

If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is also nonobvious. Dependent claims 2 and 8-26, being dependent upon and further limiting independent claim 1, should also be allowable for that reason, as well as for the additional recitations each contains.

CONCLUSION

Reconsideration and withdrawal of the listed concerns is respectfully requested. In view of the foregoing, the application is now believed to be in proper form for allowance and notice to that effect is earnestly solicited. Applicants propose respectfully that they have responded to each and every rejection and/or objection raised by the Examiner in this case.

While Applicants have respectfully disagreed with the Examiner's rejection of the claims for the above reasons, Applicant's have elected to amend the claims for clarity only, and solely for the purpose of clarifying the patent application process in a manner consistent with the PTO's Patent Business Goals (PBG), 35 Fed. Reg. 54603 (September 8, 2000). It is proposed that the amendments do not narrow the scope of the claims.

In the spirit of condensed and streamlined practice, if the Examiner believes that a telephone conference would be of value, he is respectfully requested to call the undersigned counsel at the number

listed below for prompt response. Applicant, as noted above, respectfully requests that the due date of March 23, 2003, herein be extended as required, and the U.S. Patent Office is authorized to charge the extension fee of $410.00 to our account no. 10-0100. In the event that this amount is incorrect, please charge any remainder due or credit any over payments to account no. 10-0100.

Early and favorable action is respectfully solicited.

Dated: May 23, 2003

Respectfully submitted,

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Certificate of Deposit by Mail

I hereby certify that this correspondence is being filed by depositing same in an envelope stamped first-class mail, addressed to the Director of Patents and Trademarks, Washington, DC 20231, in a duly marked U.S. Postal Service drop box, with appropriate postage, on the following date:

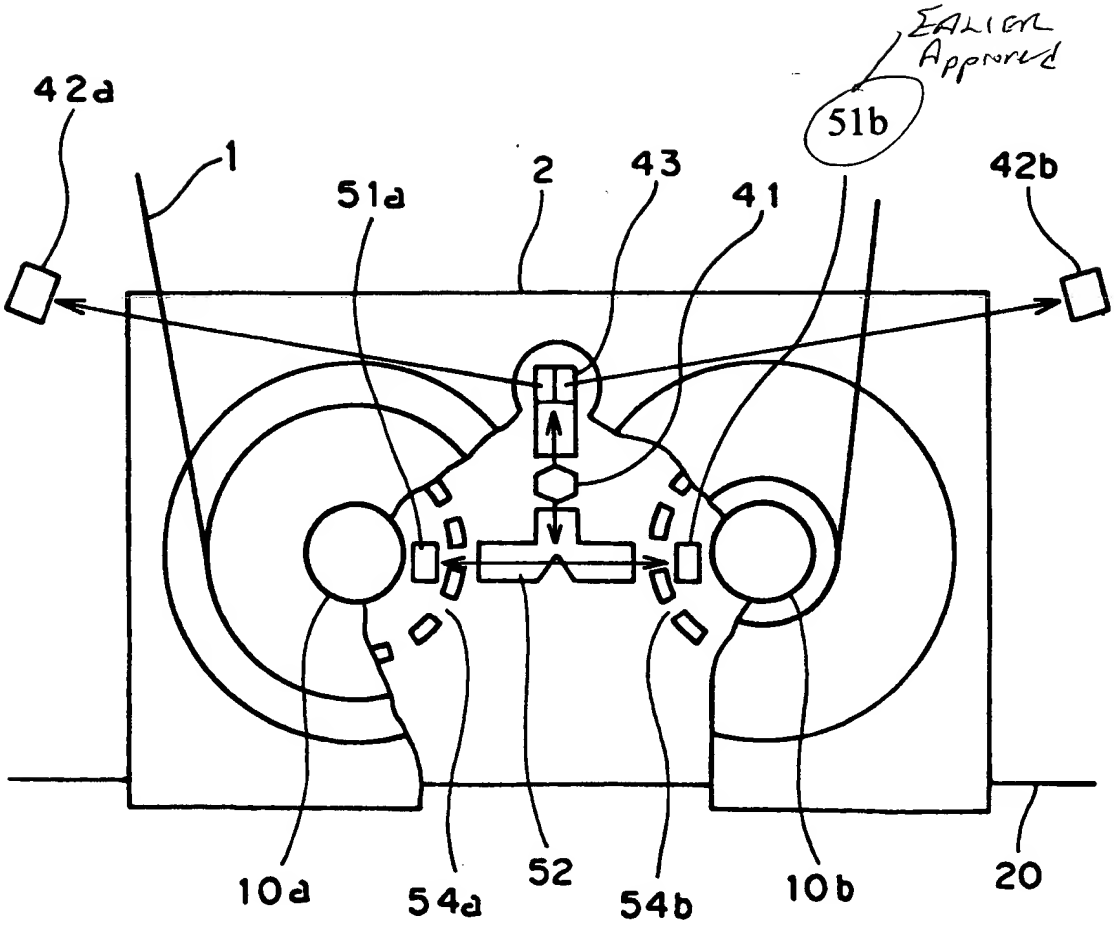
Myron Greenspan
Attorney

_____
Signature

May 23, 2003
Date

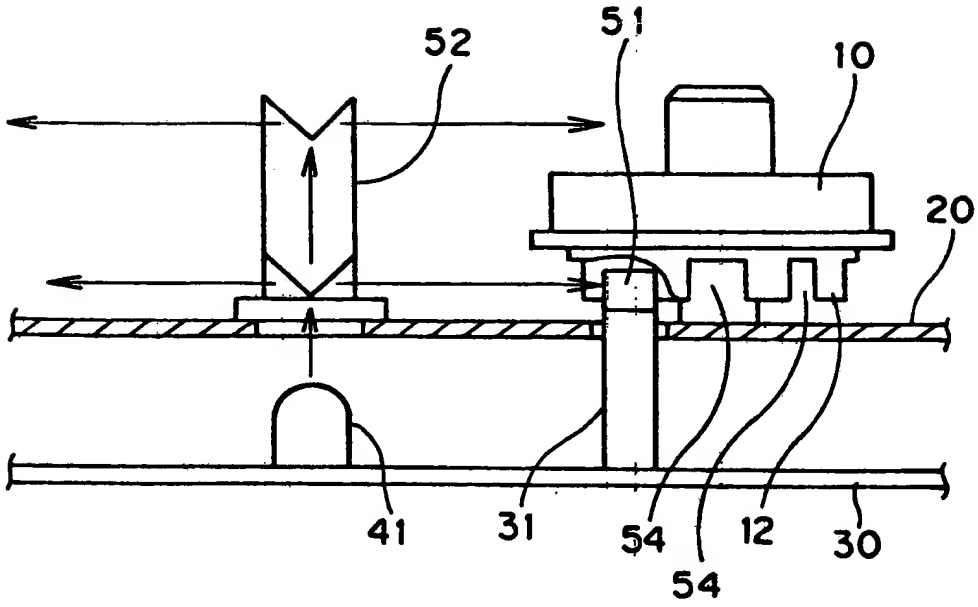
Applicant hereby petitions that any and all extensions of time of the term necessary to render this response timely be granted. COSTS FOR SUCH EXTENSION(S) AND/OR ANY OTHER FEE DUE WITH THIS FEE DUE WITH THIS PAPER THAT ARE NOT FULLY COVERED BY AN ENCLOSED CHECK MAY BE CHARGED TO DEPOSIT ACCOUNT #10-0100.

FIG. 2



ADDED → Prior Art

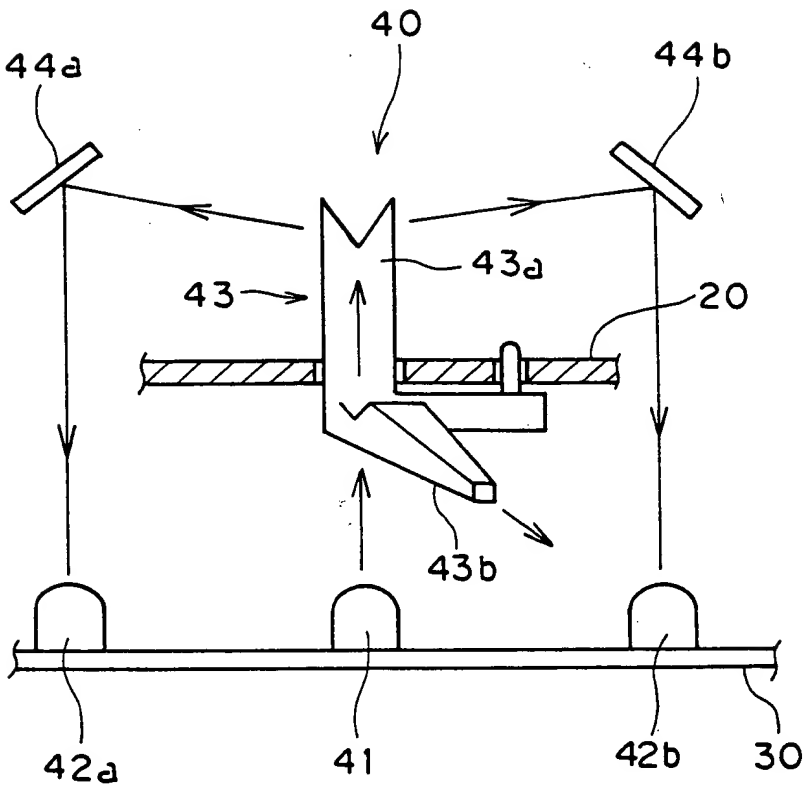
FIG. 3



Prior Art

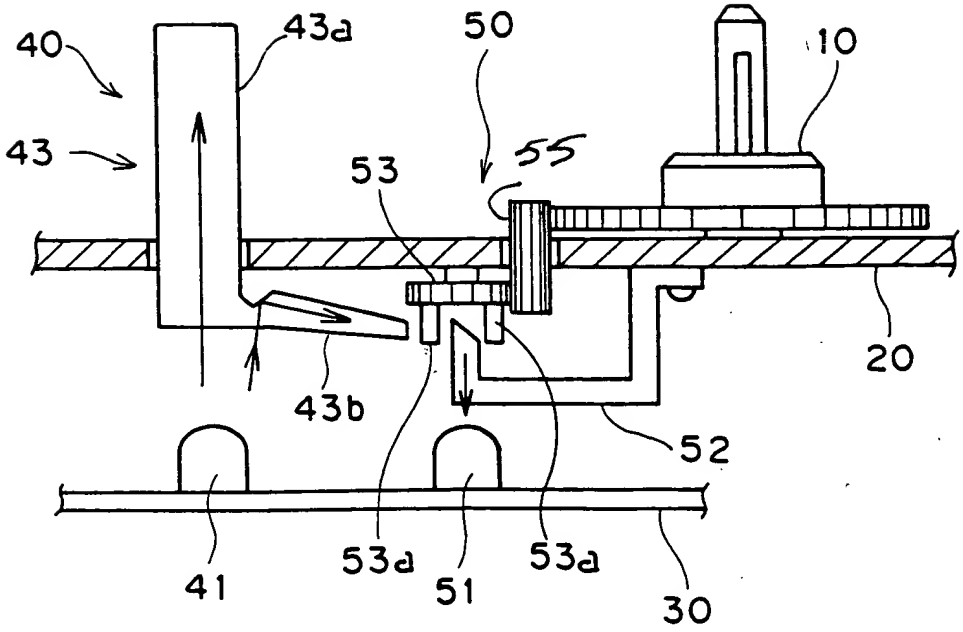
Added

FIG. 4



Add.
PRIOR ART

FIG. 5



PRIOR ART